

**CLAIMS**

1. A treatment system for reducing body perimeter at a region of treatment, comprising an ultrasound apparatus, wherein pressure exertion is applied to said region of treatment.

5        2. The treatment system of claim 1, wherein said reduction of body perimeter comprises reducing or eliminating cellulite.

3. The treatment system of claim 1, wherein said reduction of body perimeter comprises reducing body fat.

10       4. The treatment system of claim 1, wherein said reduction of body perimeter comprises reduction of body perimeter in humans, mammals, and animals.

15       5. The treatment system of claim 1, wherein said reduction of body perimeter comprises reduction of body perimeter in regions of the body selected from the list consisting of: legs, thighs, knees, buttocks, abdomen, stomach, and arms.

6. The treatment system of claim 1, wherein said system is utilized to reduce or eliminate stretch marks.

7. The treatment system of claim 6, wherein said stretch marks are located on the stomachs and mid-sections of women.

20       8. The treatment system of claim 1, wherein said system is utilized to reduce or eliminate at least one selected from the list consisting of: sagging skin, skin having stretch marks on it, and skin affected by cellulite.

9. The treatment system of claim 8, wherein said sagging skin comprises upper arm skin.

25       10. The treatment system of claim 9, wherein said system is utilized to render the general appearance of skin to look and feel smooth, or return said appearance of skin to a smooth state it looked like before sagging.

11. The treatment system of claim 1, wherein said ultrasound apparatus comprises being operational at a frequency ranging between 1 to 4 MHz.

30       12. The treatment system of claim 1, wherein said ultrasound apparatus comprises being operational at an intensity ranging between 1 to 3 W/cm<sup>2</sup>.

13. The treatment system of claim 1, wherein said ultrasound apparatus comprises being operational for 40 to 45 minutes per session.

14. The treatment system of claim 1, wherein said ultrasound apparatus comprises being operational within a range of 2.5 to 3.5 MHz, primarily for the  
5 reduction and elimination of cellulite.

15. The treatment system of claim 1, wherein said ultrasound apparatus comprises being operational substantially at a frequency of 3 MHz, primarily for the reduction and elimination of cellulite.

16. The treatment system of claim 1, wherein said ultrasound apparatus  
10 comprises being operational within a range of 0.9 to 1.6 MHz, primarily for the reduction of body fat.

17. The treatment system of claim 1, wherein said ultrasound apparatus comprises being operational substantially at a frequency of 1 MHz, primarily for the reduction of body fat.

18. The treatment system of claim 1, wherein said ultrasound apparatus  
15 comprises being operational at a minimum intensity of  $1.5 \text{ W/cm}^2$ .

19. The treatment system of claim 1, wherein a wavelength of operation of said ultrasound apparatus is varied over time.

20. The treatment system of claim 1, further comprising a pressure  
20 exertion apparatus for applying said pressure exertion on said region of treatment simultaneously with said ultrasound apparatus.

21. The treatment system of claim 1, further comprising a pressure exertion apparatus for applying said pressure exertion on said region of treatment for up to 30 minutes after using said ultrasound apparatus.

22. The treatment system of claim 1, further comprising a pressure  
25 exertion apparatus for applying said pressure exertion on said region of treatment simultaneously, and for up to 30 minutes after using said ultrasound apparatus.

23. The treatment system of claim 1, further comprising a pressure  
30 exertion apparatus for applying said pressure exertion on surrounding regions surrounding said region of treatment, wherein said surrounding regions comprise regions selected from the list consisting of: above said region of

treatment, below said region of treatment, and above and below said region of treatment.

24. The treatment system of claim 1, further comprising a pressure exertion apparatus for applying said pressure exertion, wherein said pressure exertion apparatus comprises a transducer head of said ultrasound apparatus.

25. The treatment system of claim 24, wherein said transducer head is used to provide a massaging action to said area of treatment.

26. The treatment system of claim 25, wherein said massaging action comprises moving said transducer head in ways selected from the list consisting of: small circular motions all the while keeping the wrist straight, and tilting and moving the wrist in different directions repetitively.

27. The treatment system of claim 23, further comprising a pressure exertion apparatus for applying said pressure exertion, wherein said pressure exertion apparatus comprises mechanical massaging means.

28. The treatment system of claim 23, further comprising a pressure exertion apparatus for applying said pressure exertion, wherein said pressure exertion apparatus comprises manual massaging means.

29. The treatment system of claim 1, wherein said pressure exertion comprises a massage given by bare hands.

30. The treatment system of claim 23, further comprising a pressure exertion apparatus for applying said pressure exertion, wherein said pressure exertion apparatus comprises an electrical stimulation apparatus capable of providing electrical stimulation to muscles surrounding said area of treatment.

31. The treatment system of claim 30, wherein said electrical stimulation apparatus comprises being operational in an intensity range between 5 to 90 mA.

32. The treatment system of claim 30, wherein said electrical stimulation apparatus comprises being operational in a frequency range between 5 to 150 Hz.

33. The treatment system of claim 30, wherein said electrical stimulation apparatus comprises being operational for stimulation techniques selected from the list consisting of: Interferential, Premodulated, Biophasica, IF Isoplanar (4 poles), IF Vectorial (4 poles), and MF stimulation.

34. The treatment system of claim 33, wherein said stimulation techniques are used in a pattern variation, wherein said pattern variation lasts varying times, wherein said pattern variation consists of changing the stimulation technique during a treatment session.

5        35. The treatment system of claim 32, wherein said frequency of operation of said electrical stimulation apparatus is varied over time within said frequency range.

36. The treatment system of claim 35, wherein variation over time of said frequency of operation of said electrical stimulation apparatus is selected from  
10 the list consisting of: applying a specific frequency for a fixed amount of time before switching to another frequency, gradually changing said frequency from one extreme to another over various time durations, and only using extreme frequencies within said range intermittently.

37. The treatment system of claim 30, wherein a rate of change of a  
15 variation of an operational wavelength of said ultrasound apparatus is inversely proportional to a rate of change of a variation of said electrical stimulation apparatus operational frequency, a variation of an intensity of said electrical stimulation and a pattern variation of said electrical stimulation.

38. The treatment system of claim 1, wherein said ultrasound apparatus  
20 is used in conjunction with a gel rubbed on an area of treatment.

39. The treatment system of claim 1, further comprising a camera.

40. The treatment system of claim 1, further comprising a processor.

41. The treatment system of claim 1, further comprising a measuring  
apparatus.

25        42. The treatment system of claim 41, wherein said measuring apparatus further comprises a pressure gauge.

43. A treatment method for reducing body perimeter comprising the procedures of applying ultrasound waves to an area of treatment, and exerting pressure on said area of treatment.

30        44. The method of claim 43, wherein said reduction of body perimeter comprises reducing or eliminating cellulite.

45. The method of claim 43, wherein said reduction of body perimeter comprises reducing body fat.

46. The method of claim 43, wherein said reduction of body perimeter is utilized for the body of humans, mammals, and animals.

47. The method of claim 43, wherein said area of treatment comprises regions of the body selected from the list consisting of: legs, thighs, knees, buttocks, abdomen, stomach, and arms.

48. The method of claim 43, wherein said treatment method is utilized for reducing and eliminating post-pregnancy stretch marks on the stomachs and mid-sections of women.

49. The method of claim 43, wherein said treatment method is utilized for reducing and eliminating sagging skin.

50. The method of claim 49, wherein said sagging skin comprises sagging upper arm skin.

51. The method of claim 43, wherein said treatment method is utilized for at least one of the list consisting of: making the general appearance of skin look and feel smooth, returning said appearance of skin to said smooth state it looked like before sagging, having stretch marks on it, and being affected by cellulite.

52. The treatment method of claim 43, wherein said procedure of applying ultrasound waves comprises applying ultrasound waves at a frequency ranging between 1 to 4 MHz.

53. The treatment method of claim 43, wherein said procedure of applying ultrasound waves comprises applying ultrasound waves at an intensity ranging between 1–3 W/cm<sup>2</sup>.

54. The treatment method of claim 43, wherein said procedure of applying ultrasound waves is applied for a duration of 40 to 45 minutes.

55. The treatment method of claim 43, wherein said procedure of applying ultrasound waves comprises applying ultrasound waves within a range of 2.5–3.5 MHz, primarily for the reduction and elimination of cellulite.

56. The treatment method of claim 43, wherein said procedure of applying ultrasound waves comprises applying ultrasound waves substantially at a frequency of 3 MHz, primarily for the reduction and elimination of cellulite.

57. The treatment method of claim 43, wherein said procedure of applying ultrasound waves comprises applying ultrasound waves within a range of 0.9–1.6 MHz, primarily for the reduction of body fat.

5 58. The treatment method of claims 43, wherein said procedure of applying ultrasound waves comprises applying ultrasound waves substantially at a frequency of 1 MHz, primarily for the reduction of body fat.

59. The treatment method of claim 43, wherein said procedure of applying ultrasound waves is preferably at a minimum intensity of  $1.5 \text{ W/cm}^2$ .

10 60. The treatment method of claim 43, comprising the procedure of varying a wavelength of said ultrasound waves over time.

61. The treatment method of claim 43, wherein said procedure of exerting pressure comprises exerting pressure on said area of treatment simultaneously while applying said ultrasound waves.

15 62. The treatment method of claim 43, wherein said procedure of exerting pressure comprises exerting pressure on an area of treatment for up to 30 minutes after applying said ultrasound waves.

63. The treatment method of claim 43, wherein said procedure of exerting pressure comprises exerting pressure on said area of treatment simultaneously and for up to 30 minutes after applying said ultrasound waves.

20 64. The treatment method of claim 43, wherein said procedure of exerting pressure comprises applying pressure to regions surrounding said area of treatment selected from the list consisting of: above said area of treatment, below said area of treatment, and above and below said area of treatment.

25 65. The treatment method of claim 43, wherein said procedure of exerting pressure comprises exerting pressure with a transducer head of an ultrasound apparatus.

66. The treatment method of claim 65, wherein said procedure of exerting pressure with a transducer head comprises provide a massaging action to said area of treatment with said transducer head.

30 67. The treatment method of claim 66, wherein said massaging action comprises moving said transducer head in ways selected from the list consisting of: small circular motions all the while keeping the wrist straight, and tilting and moving the wrist in different directions repetitively.

68. The treatment method of claim 43, wherein said procedure of exerting pressure comprises exerting pressure using a mechanical massaging means.

69. The treatment method of claim 43, wherein said procedure of exerting pressure comprises exerting pressure using a manual massaging means.

70. The treatment method of claim 69, wherein said manual massaging means comprises a massage given by bare hands.

71. The treatment method of claim 43, wherein said procedure of exerting pressure comprises exerting pressure using an electrical stimulation apparatus capable of providing electrical stimulation to muscles surrounding said area of treatment.

72. The treatment method of claim 71, wherein said procedure of applying electrical stimulation comprises applying electrical stimulation at an intensity range between 5 to 90 mA.

73. The treatment method of claim 71, wherein said procedure of applying electrical stimulation comprises applying electrical stimulation at a frequency range between 5 to 150 Hz.

74. The treatment method of claim 71, wherein said procedure of applying electrical stimulation comprises applying electrical stimulation using techniques selected from the list consisting of: Interferential, Premodulated, Biophasica, IF Isoplanar (4 poles), IF Vectorial (4 poles), and MF stimulation.

75. The treatment method of claim 74, wherein said techniques are used on said area of treatment in a pattern variation, wherein said pattern variation lasts varying times, and wherein said pattern variation comprises changing the technique used on said area of treatment during a treatment session.

76. The treatment method of claim 73, further comprising the procedure of varying said frequency of said electrical stimulation over time within said range.

77. The treatment method of claim 76, wherein said variation over time is selected from the list consisting of: applying a specific frequency for a fixed amount of time before switching to another frequency, gradually changing a frequency from one extreme to another over various time durations, and using extreme frequencies within said range intermittently.

78. The treatment method of claim 71, further comprising the procedure of varying an ultrasound wavelength wherein a rate of change of said variation of said ultrasound wavelength is inversely proportional to a rate of change of a variation of said electrical stimulation frequency, a variation of an intensity of said electrical stimulation and a pattern variation of the electrical simulation techniques.

79. The treatment method of claim 43, further comprising the procedure of applying a gel rubbed on said area of treatment used in conjunction with said ultrasound waves.

80. The treatment method of claim 43, wherein said procedure of exerting pressure comprises at least one of the procedures selected from the list consisting of: transducer head massaging action, mechanical massaging, manual massaging, and applying electrical stimulation wherein said selected procedures are used together simultaneously on said area of treatment.

81. The treatment method of claim 43, further comprising the procedure of measuring using a camera for providing additional or alternative measuring means and for assisting future treatment improvements.

82. The treatment method of claim 80, further comprising the procedure of using a processor for controlling said electrical stimulation, said mechanical massaging means, said ultrasound waves, and a measuring camera, and for recording a patient's measurements.

83. A measuring method comprising the procedures of standing a patient in an upright position, with said patient's arms down; measuring and recording the height of a region of treatment from the floor;

measuring said region of treatment using a measuring apparatus with a pressure gauge attached to it;

measuring said region of treatment in a horizontal fashion, such that said measuring apparatus is placed around said region of treatment in parallel to the floor;

measuring said region of treatment using said measuring apparatus with said pressure gauge attached to it with a specific pressure exerted on said region of treatment and recording said measurement; and

measuring said region of treatment a subsequent time using said measuring apparatus with said pressure gauge attached to it at said height of said region of treatment from the floor with said specific pressure exerted on said region of treatment, with said measuring apparatus being horizontal to the

5 floor while measuring said region of treatment.